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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/061,699	02/01/2002	Scott C. Young	LEG03 P-317	1548

7590 02/06/2003

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EXAMINER

HEWITT, JAMES M

ART UNIT PAPER NUMBER

3679

DATE MAILED: 02/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application N .

10/061,699

Applicant(s)

YOUNG ET AL.

Examiner

James M Hewitt

Art Unit

3679

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 and 5. 6) ☒ Other: Attachment A.

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 120 and 122. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the mounting ring (claim 1) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 7-8 and 10-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 7 lines 3-4, the seal is said to have "an outer diameter sized to substantially eliminate fluid leakage between an external fitting that is threadingly received by the threaded nut." Stating that the seal eliminates leakage *between an external fitting* is awkward and confusing. It is apparent that Applicant intends to recite that the seal eliminates fluid leakage between the external fitting and the end fitting. The phrase "the elbow fitting and" should be inserted after "between" to make clear that the seal eliminates fluid leakage between an external fitting and the end fitting. This finds support in the specification in lines 1-4 of paragraph [00017].

In claim 10 lines 7-8, it is apparent that "not" should be inserted before "colinear" in the phrase "wherein the second axis is colinear with the first axis". This finds support in the specification in lines 7-9 of paragraph [0005], lines 1-3 of paragraph [0006], and lines 1-4 of paragraph [00016].

In claim 10 lines 13-14, the seal is said to have "an outer diameter sized to substantially eliminate fluid leakage between an external fitting that is threadingly received by the threaded nut." Stating that the seal eliminates leakage *between an external fitting* is awkward and confusing. It is apparent that Applicant intends to recite that the seal eliminates fluid leakage between an external fitting and the end fitting. The phrase "the elbow fitting and" should be inserted after "between" to make clear that the

seal eliminates fluid leakage between the external fitting and the end fitting. This finds support in the specification in lines 1-4 of paragraph [00017].

In claim 17 lines 15-16, the seal is said to have "an outer diameter sized to substantially eliminate fluid leakage between an external fitting that is threadingly received by the threaded nut." Stating that the seal eliminates leakage *between an external fitting* is awkward and confusing. It is apparent that Applicant intends to recite that the seal eliminates fluid leakage between an external fitting and the end fitting. The phrase "the elbow fitting and" should be inserted after "between" to make clear that the seal eliminates fluid leakage between the external fitting and the end fitting. This finds support in the specification in lines 1-4 of paragraph [00017].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-2, 4, 6-8, 10-11, 13 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over the submitted IDS document disclosing Marshall Brass' Part F21B34 in view of the submitted IDS document disclosing Marshall Brass' Part F26B44.

With respect to claim 1, the document depicting Marshall Brass' Part F21B34 (hereinafter "The F21B34 document") shows a swivel drop ear elbow fitting comprising: a threaded nut (3) including a plurality of integrated ears (see Attachment A) located along an external periphery of the threaded nut; a retaining ring (2); and a hollow elbow adapter (1) including a first portion centrally positioned with respect to a first axis (see Attachment A) and a second portion centrally positioned with respect to a second axis (see Attachment A), wherein the second axis is not colinear with the first axis, and wherein an outer surface of the first portion is shaped to receive the retaining ring (see "Section A-A") which retains the threaded nut on the first portion of the hollow elbow adapter while allowing the hollow elbow adapter to rotate (swivel) with respect to the threaded nut. The F21B34 document does not disclose that the ears include an aperture for receiving a fastener for securing the threaded nut to a stationary support. The F26B44 document teaches a drop ear elbow fitting having a plurality of attachment ears each with an aperture therein for securing the threaded nut of the fitting to a support (stationary or otherwise). In view of the teaching of document F26B44, it would have been obvious to one having ordinary skill in the art at the time the invention was

made to modify the ears of the F21B34 document with apertured attachment ears in order to permit the threaded nut of F21B34 to be attached to a support.

With respect to claim 2, wherein the first axis is substantially orthogonal with respect to the second axis.

With respect to claim 4, wherein the plurality of integrated attachment ears includes three attachment ears that are equally spaced along the external periphery of the threaded nut.

With respect to claim 6, wherein an outer surface of the second portion of the hollow elbow adapter includes a plurality of axially spaced ribs (see Attachment A).

With respect to claim 7, further including a seal (4) with an inner diameter sized to receive the first portion of the hollow elbow adapter and an outer diameter sized to substantially eliminate fluid leakage between the end fitting and an external fitting that is threadingly received by the threaded nut*.

*Note that the Examiner has not considered the external fitting to be positively claimed, and that the outer diameter of the seal is considered to be sized to eliminate fluid leakage between the end fitting and a given external fitting that is threadingly received by the threaded nut.

With respect to claim 8, wherein the seal is a cone-shaped seat made of an elastomeric material (santoprene).

With respect to claim 10, the document depicting Marshall Brass' Part F21B34 (hereinafter "The F21B34 document") shows a swivel drop ear elbow fitting comprising: a threaded nut (3) including a plurality of integrated ears (see Attachment A) located

along an external periphery of the threaded nut; a retaining ring (2); and a hollow elbow adapter (1) including a first portion centrally positioned with respect to a first axis (see Attachment A) and a second portion centrally positioned with respect to a second axis (see Attachment A), wherein the second axis is not colinear with the first axis, and wherein an outer surface of the first portion is shaped to receive the retaining ring (see "Section A-A") which retains the threaded nut on the first portion of the hollow elbow adapter while allowing the hollow elbow adapter to rotate (swivel) with respect to the threaded nut; and a seal (4) with an inner diameter sized to receive the first portion of the hollow elbow adapter and an outer diameter sized to substantially eliminate fluid leakage between the end fitting and an external fitting that is threadingly received by the threaded nut* (see above Note). The F21B34 document does not disclose that the ears include an aperture for receiving a fastener for securing the threaded nut to a stationary support. The F26B44 document teaches a drop ear elbow fitting having a plurality of attachment ears each with an aperture therein for securing the threaded nut of the fitting to a support (stationary or otherwise). In view of the teaching of document F26B44, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the ears of the F21B34 document with apertured attachment ears in order to permit the threaded nut of F21B34 to be attached to a support.

With respect to claim 11, wherein the first axis is substantially orthogonal with respect to the second axis.

With respect to claim 13, wherein the plurality of integrated attachment ears includes three attachment ears that are equally spaced along the external periphery of the threaded nut.

With respect to claim 15, wherein an outer surface of the second portion of the hollow elbow adapter includes a plurality of axially spaced ribs (see Attachment A).

With respect to claim 16, wherein the seal is a cone-shaped seat made of an elastomeric material (santoprene).

Claims 3 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over the F21B34 document in view of the F26B44 document as applied to claims 1 and 10 above, and further in view of Novakovich et al (US 3,376,053).

The combination of the F21B34 document and the F26B44 document teach all the limitations of claims 3 and 12 except that the first axis forms an obtuse angle with respect to the second axis. Novakovich et al, in Figure 4, teaches an elbow fitting formed of a first portion defining a first axis and a second portion defining a second axis, wherein the first axis forms an obtuse angle with respect to the second axis. In view of Novakovich's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the first and second portions of the elbow adapter (1) of the F21B34 document so that the first axis forms an obtuse angle with respect to the second axis in order for the fitting to be used in an application that requires the adapter to be angled, or requires the adapter to be capable of the range of motion (swiveling) that an obtusely angled adapter would provide.

Claims 5 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over the F21B34 document in view of the F26B44 document as applied to claims 1 and 10 above, and further in view of Martin (US 2,373,253).

The combination of the F21B34 document and the F26B44 document teach all the limitations of claims 5 and 14 except that the retaining ring is grooveless. The F21B34 document does not disclose whether or not the retaining ring (2) is grooveless. Nevertheless, Martin teaches an elbow fitting assembly employing a grooveless retaining ring (washer 18). In view of Martin's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a grooveless retaining ring in order to better accommodate the outer surface of the elbow adapter and not cause the wear against the outer surface of the adapter that a grooved or ribbed retaining ring would cause.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over the F21B34 document in view of the F26B44 document as applied to claim 1 above, and further in view of Humber (US 5,305,785).

The combination of the F21B34 document and the F26B44 document teach all the limitations of claim 9 except that the threads of the threaded nut are straight threads. The F21B34 document does not explicitly disclose what type of threads are used for the threaded nut. Nevertheless, Humber discloses a threaded nut (32) having straight threads. In view of Humber's teaching, it would have been obvious to one having

ordinary skill in the art at the time the invention was made to employ a threaded nut having straight threads in order to permit connection of the nut to a fitting or pipe having straight threads.

Claims 17, 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the F21B34 document in view of the F26B44 document, and further in view of Humber (US 5,305,785), and still further in view of Novakovich et al (US 3,376,053).

With respect to claim 17, the document depicting Marshall Brass' Part F21B34 (hereinafter "The F21B34 document") shows a swivel drop ear elbow fitting comprising: a threaded nut (3) including a plurality of integrated ears (see Attachment A) located along an external periphery of the threaded nut; a retaining ring (2); and a hollow elbow adapter (1) including a first portion centrally positioned with respect to a first axis (see Attachment A) and a second portion centrally positioned with respect to a second axis (see Attachment A), and wherein an outer surface of the first portion is shaped to receive the retaining ring (see "Section A-A") which retains the threaded nut on the first portion of the hollow elbow adapter while allowing the hollow elbow adapter to rotate (swivel) with respect to the threaded nut; and a cone-shaped seat (4) made of elastomeric material (santoprene) with an inner diameter sized to receive the first portion of the hollow elbow adapter and an outer diameter sized to substantially eliminate fluid leakage between the end fitting and an external fitting that is threadingly received by the threaded nut* (see above Note). The F21B34 document does not disclose that the ears include an aperture for receiving a fastener for securing the

threaded nut to a stationary support. The F26B44 document teaches a drop ear elbow fitting having a plurality of attachment ears each with an aperture therein for securing the threaded nut of the fitting to a support (stationary or otherwise). In view of the teaching of document F26B44, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the ears of the F21B34 document with apertured attachment ears in order to permit the threaded nut of F21B34 to be attached to a support. The F21B34 document also does not disclose that the threads of the threaded nut are straight threads. The F21B34 document does not explicitly disclose what type of threads are used for the threaded nut. Nevertheless, Humber teaches a threaded nut (32) having straight threads. In view of Humber's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a threaded nut having straight threads in order to permit connection of the nut to a fitting or pipe having straight threads. The F21B34 document also does not disclose that the first axis forms an obtuse angle with respect to the second axis. Novakovich et al, in Figure 4, teaches an elbow fitting formed of a first portion defining a first axis and a second portion defining a second axis, wherein the first axis forms an obtuse angle with respect to the second axis. In view of Novakovich's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the first and second portions of the elbow adapter (1) of the F21B34 document so that the first axis forms an obtuse angle with respect to the second axis in order for the fitting to be used in an application that

requires the adapter to be angled, or requires the adapter to be capable of the range of motion (swiveling) that an obtusely angled adapter would provide.

With respect to claim 18, wherein the plurality of integrated attachment ears includes three attachment ears that are equally spaced along the external periphery of the threaded nut.

With respect to claim 20, wherein an outer surface of the second portion of the hollow elbow adapter includes a plurality of axially spaced ribs (see Attachment A).

Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over the F21B34 in view of the F26B44 document, further in view of Humber (US 5,305,785), and still further in view of Novakovich et al (US 3,376,053), as applied to claim 17, and still further in view of Martin (US 2,373,253).

The combination of the F21B34 document, the F26B44 document, Humber and Novakovich et al teach all the limitations of claim 19 except that the retaining ring is grooveless. The F21B34 document does not disclose whether or not the retaining ring (2) is grooveless. Nevertheless, Martin teaches an elbow fitting assembly employing a grooveless retaining ring (washer 18). In view of Martin's teaching, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize a grooveless retaining ring in order to better accommodate the outer surface of the elbow adapter and not cause the wear against the outer surface of the adapter that a grooved or ribbed retaining ring would cause.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Boticki, Barthomolmew, Fouts and Guest constitute prior art devices considered by the Examiner to be relevant to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to James M Hewitt whose telephone number is 703-305-0552. The examiner can normally be reached on M-F, 930am-600pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynne Browne can be reached on 703-308-1159. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9326 for regular communications and 703-872-9327 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1113.

jmh
jmh

January 31, 2003

James M. Hewitt
James M. Hewitt

Patent Examiner
Technology Center 3600

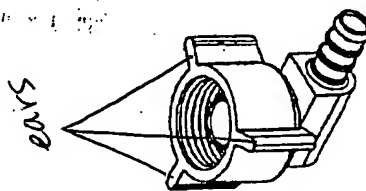
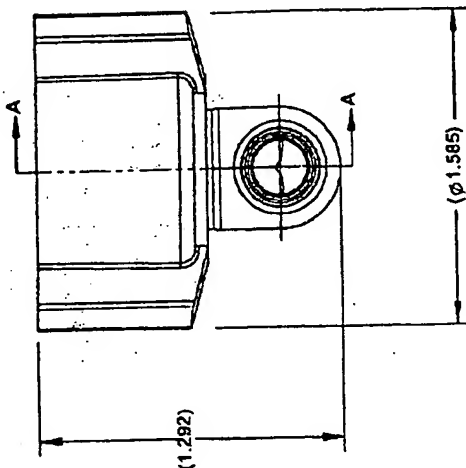
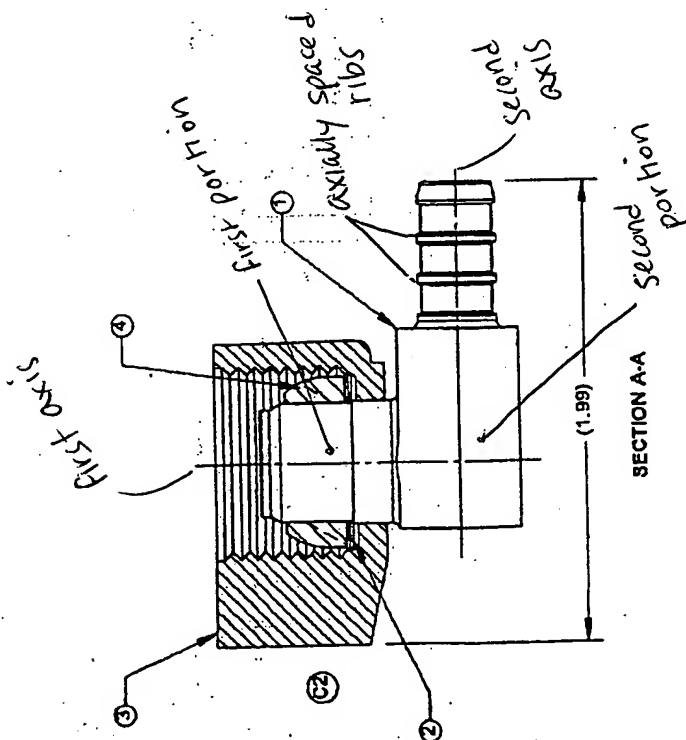
Attachment A

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F21B34

REV	DESCRIPTION	DATE	ECN NO	BY
C	1) REDRAWN TO SOLIDWORKS 2) CORRECTED VIEW OF NUT ANGLE	1-14-99	1325	CR

CONTROLLED COPY



ITEM NO.	QTY.	PART NO.	DESCRIPTION	MATERIAL
1	1	F20B34	ELBOW ADAPTOR, 3/8 PEX X 1/2 TERMINATION	BRASS
2	1	F23B44-2	1/2" RETAINING RING	SS
3	1	F31P4	NUT, 1/2" CENTERSET	PLASTIC
4	1	F34N4	SEAL, CONE SLIP JOINT 1/2"	SANTOPRENE

MARSHALL BRASS		450 Leggett Road Marshall, Michigan 49068 (616) 781-3901 1-800-447-9513	
Division of S.H. Leggett Co.		TITLE: ELBOW SWIVEL ASSEMBLY 3/8 PEX X 1/2 TERMINATION	
DO NOT SCALE THIS DRAWING		DRAWING NUMBER: F21B34	
CAD FILENAME:	PROJECT NUMBER: EP005	CHECKED BY: CHRIS RENIGER	DATE: 4-7-97
J:\PRODUCTS\PROJ\ELBOW\F21B34	DATE: 1-19-99	APPROVED BY: R. N. J. 14-1	DATE: 1-19-99
SHEET SIZE: B		SHEET NO: 1 OF 1	